

Date: Friday, 10/08/2007 10:03:13 AM
 User: Linda Lacelle

Process Sheet

Customer : CC-DAR01 Dart Aerospace Ltd.	Drawing Name : X-TUBE
Job Number : 33866	
Estimate Number : 10804	<i>Z-Custom Re-Work</i>
P.O. Number : <i>N/A</i>	Part Number : D206667103
This Issue : 10/08/2007 S.O. No. : <i>N/A</i>	Drawing Number : D206-667-143 REV B
Prsht Rev. : NC	Project Number : <i>N/A</i>
First Issue : <i>N/A</i>	Drawing Revision : <i>N/A</i>
Previous Run : 33856	Material : <i>N/A</i>
Written By : <i>[Signature]</i>	Due Date : 17/08/2007 Qty: 1 Um: Each
Checked & Approved By : <i>[Signature]</i>	
Comment : RE-WORK TO CURRENT CHANGE	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPPd206--667-103

CHG 002

cl 0710210

2.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

D206-667-103

Original Batch: *B19618**P.T.O**see W/O: # 33856**for info cl.*

1-Drill pilot holes in tube using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill all (3) top holes.

2-Drill and Ream all holes in tube to finish size using drill Jig DT8541 & DT8542 as per Dwg D206-667-143 Check dimensions between holes on all four sides.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill only the top (2) holes.

5-Drill & ream the top (2) holes to finish size using drill Jig DT8541 & DT8542 as per Dwg D206-667-143

6-Drill Fwd rivet holes using drill Jig DT8787FWD as per Dwg D206-667-143. Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8787AFT as per Dwg D206-667-143.

8-C'sink holes as per Dwg D206-667-143. Allow rivet to sit below surface to compensate for paint.

9-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143

Date: Friday, 10/08/2007 10:03:13 AM

User: Linda Lacelle

Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: X-TUBE

Job Number: 33866

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description :

3.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

4.0

QC14

INSPECT SPRAY PAINT



Comment: Inspect Spray Paint

Wrap in plastic bag to protect from scratches

5.0

D206667103

Crosstube Installation



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Crosstube Installation

6.0

D2873043

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2873-043 Nut Plate

7.0

D2873045

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2873-045 Nut Plate

8.0

MS20601AD4W8

RIVET



Comment: Qty.: 14.0000 Each(s)/Unit Total: 14.0000 Each(s)

Pick:

Qty Part number Description Batch

14 MS20601AD4W8 Rivet

Date: Friday, 10/08/2007 10:03:13 AM
User: Linda Lacelle

Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: X-TUBE

Job Number: 33866

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description :

9.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install abrasion strips as per QSI 035 using DT8579. .Note: (2) Aft holes should be facing up.

2-Install supports and clamps as per Dwg D4206-667-143. Torque clamps to 80-100 in lb

3-Install nut plates as per Dwg D206-667-143. Touch-up rivet heads with Imron paint.

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

12.0

AN532A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: _____

13.0

MS21042L5

Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Nut

Batch: _____

14.0

AN57A

Bolt



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:Packing Kit

Qty Part number Description Batch

10 AN5-7A Bolt _____

Date: Friday, 10/08/2007 10:03:13 AM

User: Linda Lacelle

Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: X-TUBE

Job Number: 33866

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description :

15.0

AN530A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick: Packing Kit

Qty Part number Description Batch

4 AN5-30A Bolt

16.0

AN960JD516

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick: Packing Kit

Qty Part number Description Batch

18 AN960JD516 Washer

17.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D206-667-103

Location: _____

PPP Rev: _____

19.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



C 207/08/10

Done 8/10 ①

Date: Thursday, 8/9/2007 2:09:08 PM
 User: Jean-Luc Menard

Process Sheet

Customer : CC-DAR01 Dart Aerospace Ltd. Drawing Name : X-TUBE
 Job Number : 33856
 Estimate Number : 10804
 P.O. Number :
 This Issue : 8/9/2007 S.O. No. :
 Prsht Rev. : NC
 First Issue : 1 / Type : R&D GENERAL
 Previous Run : 00015
 Written By : JP 07-08-09
 Checked & Approved By :
 Comment : RE-WORK TO CURRENT CHANGE

Part Number : Z_CUSTOM
 Drawing Number : D206-667-143 REV B
 Project Number :
 Drawing Revision :
 Material :
 Due Date : 8/16/2007 Qty: 1 Um: Each

Additional Product

DART		TEL: 1-613-632-8836 FAX: 1-613-632-4143	
TRANSPORT CANADA APPROVAL 409-39			
P/N	D206-667-103	CHG	CHG001
DESC	Crosstube Fwd High	SIC	SH01-5
LOT	B19618	SIC	SR01304NY
MODEL	Bell 206L/L1/L3/L4	SIC	
MADE IN CANADA			

Job Number:



Seq. #: Machine Or Operation: Description

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPPd206-667-103 CHG 002

2.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

D206-667-103

Original Batch: 19618

1-Drill pilot holes in tube using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill all (3) top holes.

2-Drill and Ream all holes in tube to finish size using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Check dimensions between holes on all four sides.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill only the top (2) holes.

5-Drill & ream the top (2) holes to finish size using drill Jig DT8541 & DT8542 as per Dwg D206-667-143

6-Drill Fwd rivet holes using drill Jig DT8787FWD as per Dwg D206-667-143. Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8787AFT as per Dwg D206-667-143.

8-C'sink holes as per Dwg D206-667-143. Allow rivet to sit below surface to compensate for paint.

9-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143

EL 7-8-9

Date: Thursday, 8/9/2007 2:09:08 PM
User: Jean-Luc Menard

Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: X-TUBE

Job Number: 33856

Part Number: Z_CUSTOM

Job Number:



Seq. #:

Machine Or Operation:

Description :

3.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

ml 070809 (1)

4.0

QC14

INSPECT SPRAY PAINT



Comment: Inspect Spray Paint

Wrap in plastic bag to protect from scratches

5 07/08/10 (x1)

5.0

D2873043

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2873-043

Nut Plate

B329286

ml 070809

(2)

6.0

D2873045

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2873-045

Nut Plate

B32164

ml 070809

(2)

7.0

MS20601AD4W8

RIVET



Comment: Qty.: 14.0000 Each(s)/Unit Total : 14.0000 Each(s)

Pick:

Qty Part number Description Batch

14 MS20601AD4W8

Rivet

102850

ml 070809

(14)

8.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install abrasion strips as per QCI 035 using DT8579. Note: (2) Aft holes should be facing up.

2-Install supports and clamps as per Dwg D4206-667-143. Torque clamps to 80-100 in lb

N/A 07/08/10

Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: X-TUBE

Job Number: 33856

Part Number: Z_CUSTOM

Job Number:



Seq. #:

Machine Or Operation:

Description :

3-Install nut plates as per Dwg D206-667-143. Touch-up rivet heads with Imron paint.

ml 070809 (1)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Er 07/08/10 (x1)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

11.0

AN532A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: M104885 -

12.0

MS21042L5

Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Nut

Batch: M104118 -

13.0

AN57A

Bolt



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:Packing Kit

Qty Part number

Description Batch

10 AN5-7A

Bolt M103389 -

14.0

AN530A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:Packing Kit

Qty Part number

Description Batch

4 AN5-30A

Bolt M19522 -

15.0

AN960JD516

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:Packing Kit

Qty Part number

Description Batch

18 AN960JD516 Washer M104118 -

Er 07/08/10 (x1)

Process Sheet

Customer: CC-DAR01 Dart Aerospace Ltd.

Drawing Name: X-TUBE

Job Number: 33856

Part Number: Z_CUSTOM

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

Er 07/08/10 (41/Kit)

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D206-667-103

Location:

PPP Rev:

B

Le 7/8/10 (1)

18.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

D 07/08/10 (1)

Job Completion



Le 7/08/10

Le 07/08/10

DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED HDS	APPROVED HDS	DRAWING NO. D206-667-143	REV. B SHEET 1 OF 3
DATE 05.07.26		TITLE CROSSTUBE ASS'Y (206L HIGH FWD) NTS	
A	00.11.17	NEW ISSUE	
B	05.07.26	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	

RELEASED
05-07-26**UNDER REVIEW**06.08.10 PH
re-draw detail F

Qty	Part Number	Description
X	D206-667-143	CROSSTUBE ASSEMBLY (206L HIGH FWD)
1	D6002-115	CROSSTUBE
2	D2873-043	NUT PLATE
2	D2873-045	NUT PLATE
2	D2856-400-694	ABRASION STRIP
2	D2891-1	SUPPORT
14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
4	MS21920-20	CLAMP

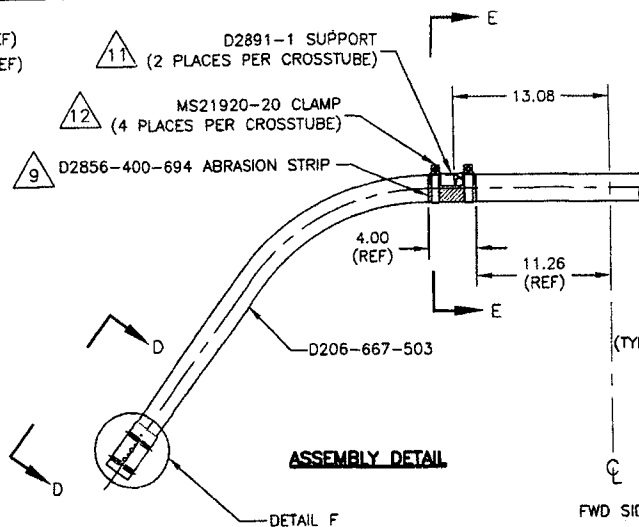
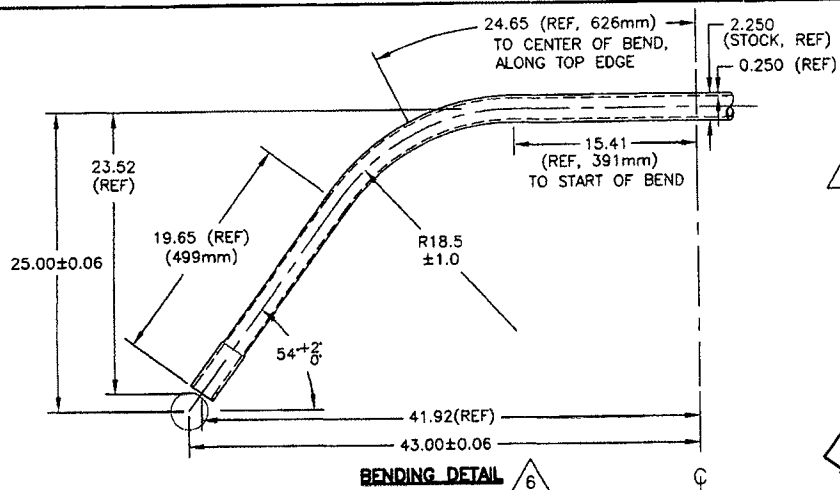
GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6002-115
FINISHED LENGTH = 104.98 ± 0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-400-694 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2891-1 SUPPORT, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) IT IS OPTIONAL TO SEAL EDGES OF SUPPORTS AND ABRASION STRIP USING SIKAFLEX-241/291 SEALANT.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB.

0559

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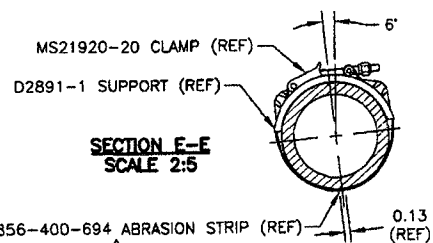


△ B $\phi 0.323^{+0.005}_{-0.000}$
(TYP 5 PLACES PER CUFF)
HOLE TO BE ALIGNED WITHIN ± 0.001 OF HOLE ON OTHER SIDE OF CUFF

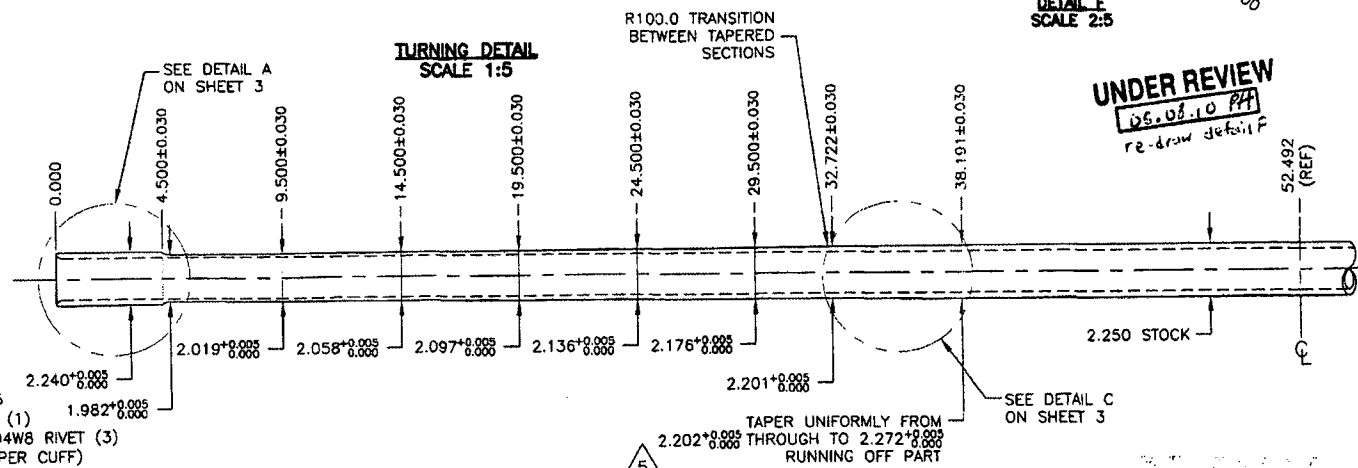
PILOT $\phi 0.128$
C'SINK $\phi 0.225 \times 100'$
(TYP 7 PLACES PER CUFF)

FWD SIDE ONLY

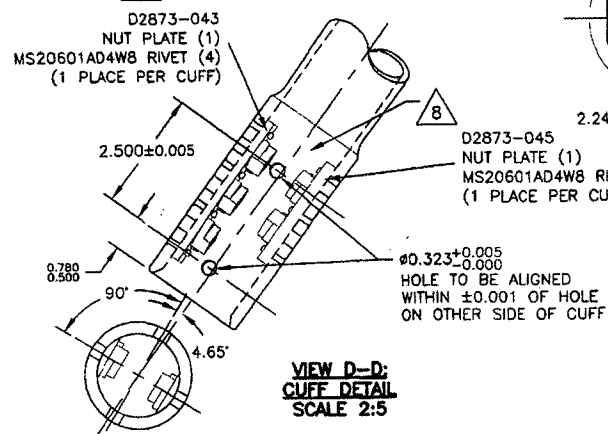
DETAIL F SCALE 2:5



TURNING DETAIL SCALE 1:5

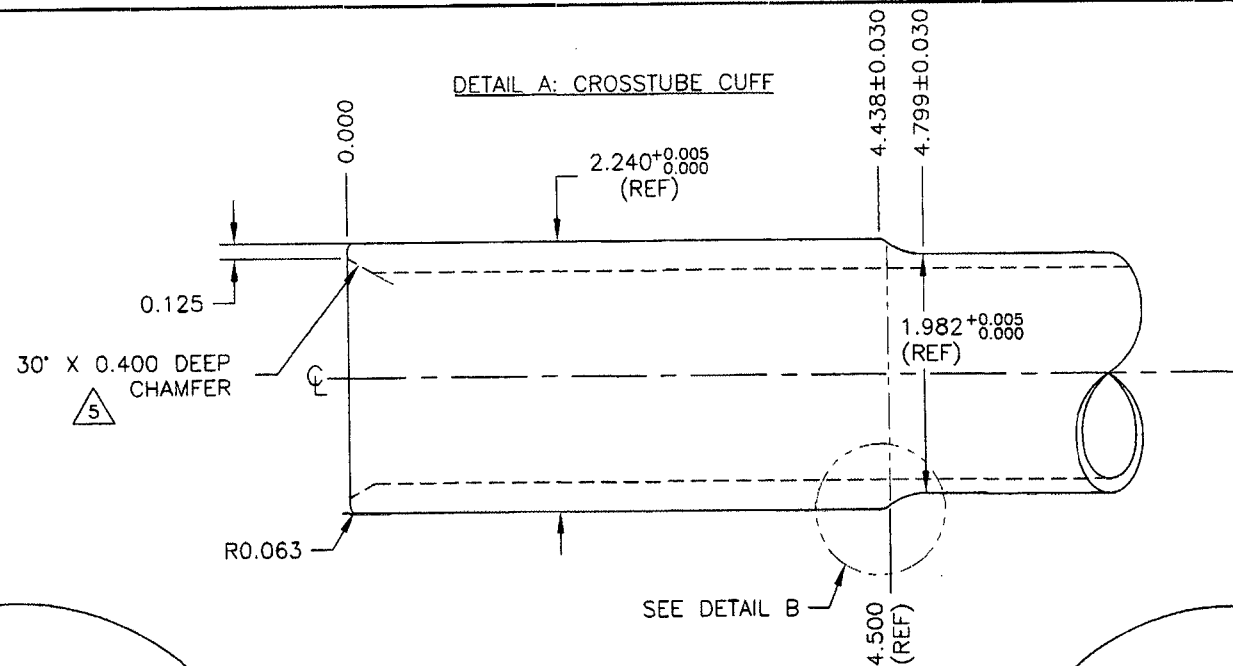


UNDER REVIEW
05.08.10 PH
re-draw detail F



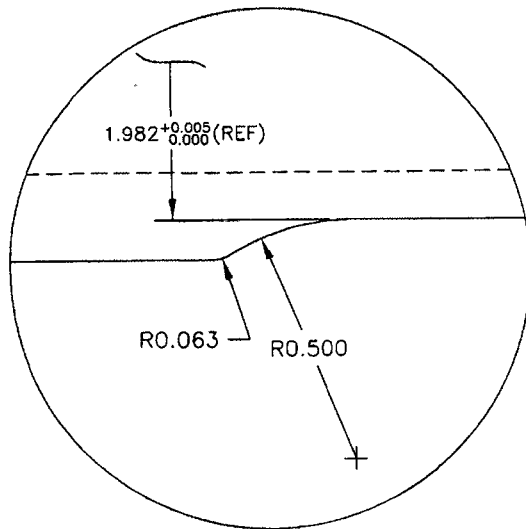
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CHECKED		4 DS	APPROVED	4 OS	DRAWING NO.
DATE		05.07.26	D206-667-143		REV. B
		TITLE		CROSSTUBE ASS'Y (206L HIGH FWD)	SHEET 2 OF 3
				SCALE	1:10

DETAIL A: CROSSTUBE CUFF

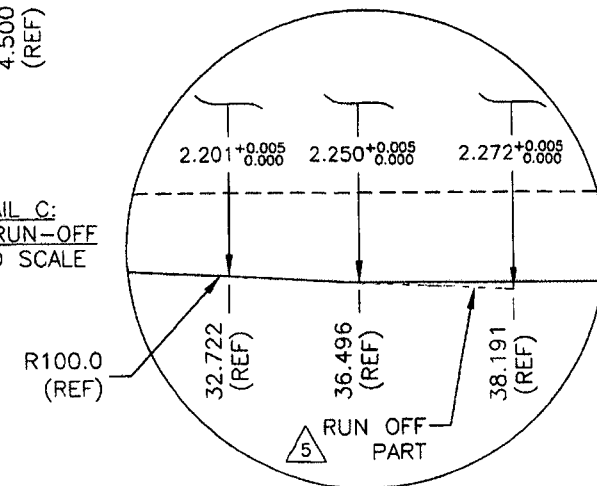


05.07.26 4

UNDER REVIEW
 28.08.10 PH
 re-draw detail F



DETAIL C: TAPER RUN-OFF NOT TO SCALE



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DESIGN

PH

DRAWN BY

PH

DART

DART AEROSPACE LTD.

HAMPSHIRE, ONTARIO, CANADA

CHECKED

PH

APPROVED

PH

DRAWING NO.

D206-667-143

REV. B

DATE

05.07.26

TITLE

CROSSTUBE ASS'Y (206L HIGH FWD)

SCALE

1:1

SHEET 3 OF 3

D3066-1

Spencer
D3066-1

44

DART AEROSPACE LTD	Work Order:	19618
Description: 206L Fwd Crosstube Assembly	Part Number:	D206-667-103
Drawing: D206-667-143 rev. A2 RF 02.09.04	Qty:	1
Page 1 of 2		

Step	Location	Procedure	By	Date	Qty
1	EXPEDITING	Issue W/O <i>Dwg. not required RF 02.09.04</i>	<i>[Signature]</i>	03.09.11	1
2	QC	Photocopy blue file and type labels per PPP D206-667-103 <i>WK 42 [Signature]</i>	<i>[Signature]</i>	03.10.07	1
3	CNC CELL	Material: <i>Check OD = 2.250" ; ID = 1.750"</i> Qty Part number Description batch 1 D6002-115 Crosstube B18981	<i>[Signature]</i>	03/09/16	1
4	CNC CELL	Fill tube with sand & install plugs DT8534 on both ends as per folio FA087	<i>[Signature]</i>	03/09/17	1
5	CNC CELL	Turn first side as per folio FA087	<i>[Signature]</i>	03/09/17	1
6	METAL	Deburr & Inspect for surface damage. Repair damage within limits per D206-667-143	<i>[Signature]</i>	03/09/18	1
7	QC	Inspect Level 1	<i>[Signature]</i>	03/09/18	1
8	CNC CELL	Turn second side as per folio FA087	<i>[Signature]</i>	03/09/18	1
9	METAL	Deburr & Inspect for surface damage. Repair damage within limits per D206-667-143	<i>[Signature]</i>	03/09/18	1
10A	QC	Inspect Level 1	<i>[Signature]</i>	03/09/18	1
10B	QC	INSPECT DIMENSIONS FOR SECOND CHECK	<i>[Signature]</i>	03/09/18	1
11	CNC CELL	Polish entire outside surface of crosstube	<i>[Signature]</i>	03/09/18	1
12	CNC CELL	Remove sand and plugs	<i>[Signature]</i>	03/09/18	1
13	METAL	Scribe part # and batch # using vibrating stylus as per dwg D206-667-143	<i>[Signature]</i>	03/09/18	1
14	FINISHING	Chemical Conversion Coat per QSI 005 4.1 within 24 hours of machining	<i>[Signature]</i>	03.09.19	1
15	QC	Inspect Level 5	<i>[Signature]</i>	03/09/22	1
16	METAL	Bend tube as per dwg D206-667-143 using CNC bender program 206L-fw	<i>[Signature]</i>	03/09/22	1
17	QC	Inspect Level 6	<i>[Signature]</i>	03/09/22	1
18	METAL	Drill pilot holes in tube as per dwg using drill jig DT8541 & DT8542	<i>[Signature]</i>	03/09/22	1
19	METAL	Ream hole to finish size in tube as per dwg D206-667-143 using drill jig DT8541 & DT8542	<i>[Signature]</i>	03/09/22	1
20	METAL	Deburr & Inspect for surface damage. Repair damage within limits per D206-667-143	<i>[Signature]</i>	03/09/22	1
21	FINISHING	Chemical conversion coat per QSI 005 4.1 within 24 hours of bending and drilling	<i>[Signature]</i>	03.09.22	1
22	QC	Inspect Level 5	<i>[Signature]</i>	03/09/26	1
23	QC	Liquid Penetrant Inspect per QSI 038 Or Issue P/O: <i>2005691</i> LPI per ASTM 1417 Level 2 Attach copy of NDT results to W/O	<i>[Signature]</i>	03-09-29	1
24	RECEIVING	Inspect for transit damage & attach copy of NDT results to W/O	<i>[Signature]</i>	03-10-06	1

RELEASED

PC 01/10/01

BB 04-05-05 AS

Work Order:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Manuf / Design Mgr	Approval QC Inspector

NCR		WORK ORDER NON-CONFORMANCE						
DATE	STEP	Description of NC section A	Corrective Action Section B		Sign & Date	Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial					

PAR#: _____ Fault Category: _____ DQA: _____ Date: _____

NOTE: Date & initial all entries
H:\Admin-QA\ISO\forms\w\oncB.doc

QA: N/C Closed: _____ Date: _____

DART AEROSPACE LTD	Work Order:	19618
Description: 206L Fwd Crosstube Assembly	Part Number:	D206-667-103
Drawing: D206-667-143 rev.A	Qty:	1
		Page 2 of 2

Step	Location	Procedure	By	Date	Qty
25	QC	Inspect for damage & ensure results are per dwg D206-667-141	8	03-12-19	1
26	COMPOSITE	Prime inside and outside per QSI 005 4.2	MI	03-12-19	1
27	COMPOSITE	Paint outside with white Imron per QSI 005 4.2	MI	03-12-20	1
28	COMPOSITE	Wrap in plastic bag to protect from scratch	2	04-01-12	1
29	QC	Inspect Level 14	2	04-01-12	1
30	STORES	Pick: Qty Part number Description batch 2 D2856-400-694 abrasion strip B19645 2 D2891-1 support B18194 4 MS21920-20 clamp M9472	as	04/02/20	1
31	METAL	Install abrasion strips per QSI 035 Locate strip using DT8579	as	04/02/20	1
32	METAL	Install supports and clamps per D206-667-143. Torque clamps to 80-100 in lb.	as	04/02/20	1
33	QC	Inspect Level 5	8	04-04-01	1
34	STORES	Pick: Qty Part number Description batch 4 AN5-32A bolt M11369 4 MS21042L5 nut (or MS21042-5) M5289 8 AN960JD516 washer M13767	CP	04/03/03	1
35	QC	Inspect Level 4	4	04/05/04	1
36	STORES	Package per PPP D206-667-103	REV.A	04/05/04	1
37	EXPEDITING	Close W/O Inspect level 21 Cost / Part: 1029.48 545 04/05/05 (1) 917.44 545	CP	04.05.05	1

Rev	Date	Change	Revised By	Approved
A	00.12.14	New Issue	EC	
B	01.02.06	Combined 667-143 with 667-103	EC	
C	01.08.08	Reformat	SM	
D	01.10.01	Added tool #'s & Imron paint	SM	EC

RELEASED

EC 01.10.01

Work Order:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Manuf / Design Mgr	Approval QC Inspector

NCR		WORK ORDER NON-CONFORMANCE						
DATE	STEP	Description of NC section A	Corrective Action Section B		Sign & Date	Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial					

PAR#:_____ Fault Category:_____ DQA:_____ Date:_____

NOTE: Date & initial all entries
H:\Admin-QA\ISO\formsw\oncb.doc

QA: N/C Closed: _____ Date: _____

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Sep 11, 2003
10:43 am

Work Order No : 0019618
Project Name : *D206-667-103
Project For : WK344
Work Order Type : Main
Main WO Number :
House Part Number : *D206-667-103
Description : Crosstube Installation
Manufactured : Yes
Amount Req'd : 1
Amount Done : 0
Start Date : 09-11-03
Est Finish Date : 10-30-03
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Margin : 0.000%
Actual Margin : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Testing Hours :	0.00	0.00	0.00		
Testing Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
SubContract Hours :	0.00	0.00	0.00		
SubContract :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



Dart Aerospace, Ltd
1270 Aberdeen Street
Hawksbury, Ontario
K6A 1K7
Tel: (613) 632-3336 Fax: (613) 632-4443

Sheet 1 of

FIRST ARTICLE INSPECTION SHEET

PART NO.: D206-667-103

DRAWING NO.: REV. A

DESCRIPTION: Crosstube

DRAWING REVISION: _____

MANUFACTURING DATE: 03/09/18

EFFECTIVE DEO / DSI: _____

BATCH NO.: 19618

QUANTITY ACCT. _____ REJ. _____

Side A

Dim.	Min.	Max.	ACTUAL DIMENSION	ACC.	REJ.	% OF INSP.	Method of Inspection	Comments
A	10.496	10.500				100%	Tap	
B	2.240	2.245	2.243	✓			Mic	
C	1.982	1.987	1.987	✓			Mic	
D	2.009	2.034	2.024	✓			Mic	
E	2.068	2.063	2.063	✓			Mic	
F	2.077	2.102	2.092	✓			Mic	
G	2.136	2.141	2.141	✓			Mic	
H	2.176	2.181	2.181	✓			Mic	
I	2.201	2.206	2.206	✓			Mic	
J	.115	.135	.133	✓			Vern	
K	.390	.410	.400	✓			Vern	
L	2.053	2.058	2.063	✓			P.G	30° X .400
M	2.410	2.510	2.500	✓			P.G	
N	4.437	4.439	4.439	✓			Vern	
O								
P								
Q								
R								
S								
T								
U								
V								
W								
X								
Y								
Z								

H:\admin\galis\forms\first article inspectionA

Measured by: ML
Date: 03/09/18

Audited by: BE
Date: 03/09/18

Approved by: N/A
Date: _____

Rev	Date	Created By	Approved
A			



Dart Aerospace, Ltd
1270 Aberdeen Street
Hawksbury, Ontario
K6A 1K7
Tel: (613) 632-3336 Fax: (613) 632-4443

Sheet 1 of

FIRST ARTICLE INSPECTION SHEET

PART NO.: D206-667-103

DRAWING NO.: REV. A

DESCRIPTION: Crosstube

DRAWING REVISION: _____

MANUFACTURING DATE: 03/09/18

EFFECTIVE DEO / DSI: _____

BATCH NO.: 19618

QUANTITY ACCT. _____ REJ. _____

Side B

Dim.	Min.	Max.	ACTUAL DIMENSION	ACC.	REJ.	% OF INSP.	Method of Inspection	Comments
A	104.96	105.00	104.990	✓		100%	Tap	
B	2.24	2.25	2.244	✓			Mic	
C	1.93	1.97	1.987	✓			Mic	
D	2.09	2.094	2.094	✓			Mic	
E	2.03	2.063	2.063	✓			Mic	
F	2.07	2.102	2.100	✓			Mic	
G	2.13	2.141	2.140	✓			Mic	
H	2.16	2.181	2.180	✓			Mic	
I	2.20	2.206	2.204	✓			Mic	
J	.115	.135	.125	✓			Vern	
K	.390	.410	.400	✓			Vern	
L	2.033	2.053	2.063	✓			P-G	30° X .400
M	2.410	2.510	2.500	✓			P-G	
N	4.437	4.439	4.438	✓			Vern	
O								
P								
Q								
R								
S								
T								
U								
V								
W								
X								
Y								
Z								

H:\admin-qaiso\forms\first article inspectionA

Measured by: ML
Date: 03/09/18

Audited by: [Signature]
Date: 03/09/18

Approved by: NA
Date: _____

Rev	Date	Created By	Approved
A			

Dart Aerospace, Ltd

1270 Aberdeen Street

Hawksbury, Ontario

K6A 1K7

Tel: (613) 632-3336 Fax: (613) 632-4443

Supplier Code: Sheet of

INSPECTION CHECKLIST

PART NO.: D206-667-103

PHY. CHANGE: N/A

DESCRIPTION: Crosstube

DRAWING CHANGE: Rev. A2

MANUFACTURING DATE: 03/09/18

UNICORP E.O.'S: U/A

BATCH NO.: 19618

SERIAL NO.: N/A

PURCHASE ORDER NO.: DIA

QUANTITY ACCPT. _____ REJ. _____

DATA SHEET NO.: _____

■ FIRST ARTICLE

□ PERIODIC CONFORMITY

☐ FINAL INSPECTION

$iD = 1.75$
 $\phi = 0.025$

 $\alpha = 0.025$

ITEM	DWG PAGE	* DRAWING DIMENSION	ACTUAL DIMENSION				acc.	Rej.	NOMINAL Method of Inspection	MIN. WALL Comments
			0°	90°	180°	270°				
Side A		2.000"	.249	.242	.246	.253			0.245	0.220
		4.500"	.122	.115	.122	.126			0.116	0.091
		9.500"	.140	.130	.138	.148			0.135	0.110
		14.500"	.161	.147	.160	.175			0.154	0.129
		19.500"	.178	.167	.179	.193			0.174	0.149
		24.500"	.195	.184	.198	.211			0.193	0.168
		29.500"	.215	.204	.218	.227			0.213	0.188
		32.722"	.227	.219	.229	.238			0.226	0.201
Side B		2.000"	.245	.243	.246	.252			0.245	0.220
		4.500"	.136	.121	.130	.129			0.116	0.091
		9.500"	.144	.143	.146	.146			0.135	0.110
		14.500"	.162	.166	.173	.165			0.154	0.129
		19.500"	.182	.187	.188	.184			0.174	0.149
		24.500"	.202	.205	.208	.200			0.193	0.168
		29.500"	.225	.219	.221	.219			0.213	0.188
		32.722"	.233	.230	.233	.230			0.226	0.201

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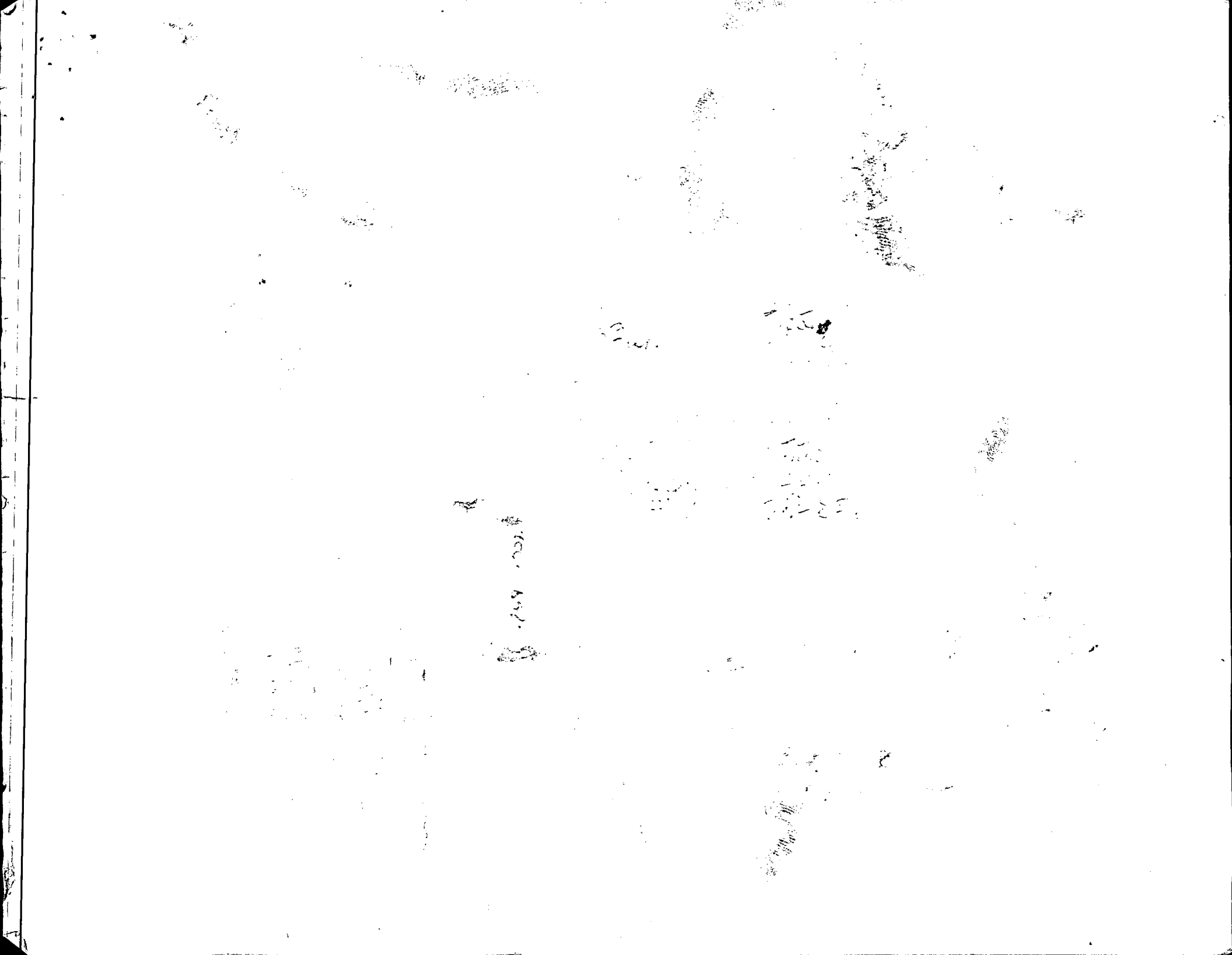
Rev B

Mesured by: nmk

Audited by: [Signature]

Approved by: [Signature]

* Position from end of tube where "actual dimension" was taken from.





HeathAir

INTERNATIONAL (1991) INC.

681 Ave. Lepine, Dorval, Québec H9P 1G3

Tél.: (514) 636-1000 • Fax: (514) 636-0031

W.O. N° 27650

A.M.O. Number: 46/90

NON-DESTRUCTIVE TESTING REPORT

AIRCRAFT / COMPONENT INFORMATION

REGISTRATION:

MODEL/TYPE:

SERIAL NUMBER:

TOTAL HR/LDG:

OPERATED BY:

BASED AT:

INSPECTION REQUIREMENTS

Carry out NDT on eight (8) cross tubes as per ASTM E-1417-99 and QSI 038.

P/N D206-667-103 S/N B19618.

P/N D407-667-105 S/N's B19619 & B19620.

P/N D412-664-203 S/N's B19202, B19203, B19204, B19205 & B19207.



RADIOGRAPHY



ULTRASONIC



PENETRANT



MAGNETIC PARTICLE



EDDY CURRENT

INSPECTION REPORT

Fluorescent penetrant inspection performed on external surface of eight (8) cross tubes in accordance with ASTM E-1417-99 and QSI 038.

No evidence of cracking found.

A level 4 penetrant was used in lieu of the level 2

A level 4 penetrant is more sensitive than a level 2

Penetrant used was Met-L-Chek FBP-914.

THE MAINTENANCE DESCRIBED ABOVE HAS BEEN PERFORMED IN ACCORDANCE WITH
THE APPLICABLE STANDARDS OF AIRWORTHINESS

INSPECTED BY:

DATE September 30, 2003

INSPECTION
STAMP(S)

N/R.

CUSTOMER INFORMATION

CUSTOMER: Dart Aerospace

P.O. NUMBER 2005691

ADDRESS:

CONTACT NAME:

LABOUR

@

\$

MATERIALS

@

TRAVEL EXPENSES

@

GST

HOTEL EXPENSES

@

PST

INVOICE NO.



TOTAL \$



WHITE COPY - INSPECTION FILE • YELLOW COPY - CUSTOMER • PINK COPY - ACCOUNTANT